

# Hardware Engineer

*Department: Engineering*  
*Reports To: Engineering Manager*

## Summary

Tucker-Davis Technologies (TDT) designs, manufactures and sells highly innovative instrumentation to the neuroscience research market. TDT products are utilized in exciting experiments in university, government and private labs all around the world. TDT specializes in electrophysiology and complex signal processing across a wide range of neuroscience applications.

TDT hardware engineers design, implement and maintain products for use in innovative neuroscience research. Common tasks include printed circuit board (PCB) design, FPGA and other microcontroller programming, mechanical engineering and embedded software implementation. Successful candidates will be capable of tackling complex engineering problems and be able to design, implement and complete projects with minimal supervision.

## Essential Duties & Responsibilities

*Detailed below are duties and responsibilities of position, other duties may be assigned.*

- Develop digital and analog circuits including PCB layout and detailed schematics.
- Write, test and debug FPGA, PIC and other microcontroller code.
- Use computer aided design (CAD) software to design mechanical enclosures.
- Coordinate manufacturing of prototypes and develop final product assembly processes.
- Systematically test and debug hardware products.
- Design assembly processes, test fixtures and detailed procedures for product testing.

## Qualifications

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required.

- Experience with schematic capture and PCB layout tools, Altium preferred.
- Ability to use instrumentation such as oscilloscopes and spectrum analyzers required.
- Knowledge of digital signal processing techniques required.
- Mechanical design skills, SolidWorks preferred.
- Must be highly organized, detail-oriented and self-motivated.



## Education and/or Experience

Bachelor's or Master's degree in Electrical Engineering, Biomedical Engineering, Neuroscience or related field or equivalent experience.

## Language Skills

Excellent verbal and written communication skills with strong technical writing skills. Ability to read, analyze, and interpret schematics, software code as well as common scientific and technical journals. Ability to effectively present information to management and other departments.

## Mathematical Skills

Ability to apply advanced mathematical concepts such as exponents, logarithms, quadratic equations, and permutations. Ability to apply mathematical operations to such tasks as frequency distribution, determination of test reliability and validity, analysis of variance, correlation techniques, sampling theory, and factor analysis.

## Reasoning Ability

Excellent problem solving skills required. Ability to define problems, collect data, establish facts, and draw valid conclusions. Ability to interpret an extensive variety of technical instructions in mathematical or diagram form and deal with several abstract and concrete variables.

## Certificates, Licenses, Registrations

Valid Florida Driver's license.

## Work Environment

Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions. TDT is a nonsmoking environment.

Please email cover letter and resume to [hr@tdt.com](mailto:hr@tdt.com) or fax to (386) 462 – 5365.  
Please include the job title in your cover letter.